Using Computers to Review Case-Based Materials and Formulate a Psychiatric Write-Up

Robert S. Kennedy, M.A. & James David, M.D.
Department Of Psychiatry
Albert Einstein College Of Medicine
Bronx, New York

ABSTRACT

Recent trends in medical student education have shifted the educational process toward case-based and clinical problem-based teaching materials. Teaching priorities are shifting from simply memorizing biomedical information to educational methods that maximize a student's ability to address clinical problems, i.e., to synthesize rather than simply recall information. Using computers to present clinical material that students can interact with can offer a productive learning tool in Psychiatry.

INTRODUCTION

Teaching students to organize material is one of the critical tasks of medical education, and case-based, interactive software can address this learning objective directly. A patient case vignette is provided to the student, who is expected to integrate and reorganize this information into the format of a traditional case write-up: Chief Complaint, History of the Present Illness, Past Medical History, etc. The vignette can proceed (as is often the case in a clinical setting) haphazardly, with historical and acute information jumbled, with sometimes conflicting history from patient vs. patient's family, etc. The student is confronted with the task of sorting, interpreting, and finally presenting this clinical case in the structure and organized format of a formal case write-up.

DESCRIPTION

Using Foxpro as a development system, a database of clinical vignettes has been set up. The student learning psychiatry is presented with a case introduction describing a patient presenting at a psychiatric emergency room or out-patient clinic. The student is then free to explore aspects of the case in any order he/she wishes. They can read the medical review of systems, laboratory results, psychiatric assessment, neurological exam, etc. and begin to formulate ideas about this patient. There is a section on DSM-III-R diagnoses, and a glossary of terms to use as a reference guide.

The computer program helps the student organize the material by asking them to type in notes on the various "discoveries" they make about the patient and the opinions they formulate. These notes can be as long or as short as they wish and the program organizes the notes as instructed by the student into the sections of a formal psychiatric write up. A final psychiatric write-up can then be printed or reviewed on the screen.

DISCUSSION

Adapting the case-based style of learning to the computer seemed to be an appropriate task. Taking the content of a patient's presentation and dividing the elements into a database was the approach used here. The students can interact with the material in any way they wish. They can approach the learning process with a "hypertext" style of review or in a more traditional step-by-step method. Although all of the materials that the student needs to understand the patient, make an appropriate diagnosis and compile a formal case write-up is available within the database presented, other reference materials are available as a resource. Students are encouraged to learn from every resource available.

Foxpro is a flexible development system and was chosen because of its power and "cross-platform" compatibility, i.e., can be used in DOS, Windows, Macintosh and Unix environments.

0195-4210/92/$5.00